WHAT IS CLAIMED IS:

1. An apparatus for transmitting a time-discontinuous burst pilot channel dependent on transmission data in a mobile communication system, comprising:

a modulator for generating a modulated pilot symbol by outputting an input pilot channel data at at least one of a designated phase and on a designated complex channel according to an information bit for designating at least one of the phase and the complex channel; and

a spreader for spreading the modulated pilot symbol from the modulator with an orthogonal code selected among a plurality of orthogonal codes;

wherein the burst pilot channel transmits side information being dependent on the transmission data according to at least one of the phase, and the complex channel and the orthogonal code.

2. The apparatus as claimed in claim 1, wherein the modulated pilot symbol has a length of 128 chips.

3. The apparatus as claimed in claim 1, wherein the modulated pilot symbol has a length of 64 chips.

4. The apparatus as claimed in claim 1, wherein the complex channel includes an I channel and a Q channel.

5. An apparatus for transmitting side information over a burst pilot channel in a mobile communication system, comprising:

a modulator for generating a modulated pilot symbol by outputting an input pilot channel data at a designated phase according to an information bit for determining the phase; and

a spreader for spreading a modulated pilot symbol output from the

modulator with a predefined orthogonal code.

6. An apparatus for transmitting side information over a burst pilot channel in a mobile communication system, comprising:

a modulator for generating a modulated pilot symbol by outputting an input pilot channel data on a designated complex channel according to an information bit for determining the complex channel; and

a spreader for spreading a modulated pilot symbol output from the modulator with a predefined orthogonal code.

7. An apparatus for transmitting side information over a burst pilot channel in a mobile communication system, comprising:

a modulator for generating a burst pilot symbol; and

a spreader for spreading the burst pilot symbol with an orthogonal code selected according to an information bit, from a plurality of orthogonal codes.

8. An apparatus for transmitting side information over a burst pilot channel in a mobile communication system, comprising:

a modulator for generating a modulated pilot symbol by outputting an input pilot channel data at a designated phase according to an information bit for designating the phase; and

a spreader for spreading the modulated pilot symbol with an orthogonal code selected according to the information bit, from a plurality of orthogonal codes.

9. An apparatus for transmitting side information over a burst pilot channel in a mobile communication system, comprising:

a modulator for generating a modulated pilot symbol by outputting an input pilot channel data on a designated complex channel according to an information bit for determining the complex channel; and

a spreader for spreading the modulated pilot symbol with an orthogonal code selected according to the information bit, from a plurality of orthogonal codes.

10. A method for transmitting a time-discontinuous burst pilot channel dependent on transmission data in a mobile communication system, comprising the steps of:

generating a modulated pilot symbol by outputting an input pilot symbol at at least one of a designated phase and on a designated complex channel according to an information bit for determining at least one of the phase and the complex channel; and

spreading the modulated pilot symbol with an orthogonal code selected from a plurality of orthogonal codes;

wherein the burst pilot channel transmits side information being dependent on the transmission data according to the phase, and/or the complex channel and the orthogonal code.

11. The method as claimed in claim 10, wherein the modulated pilot symbol has a length of 128 chips.

12. The method as claimed in claim 10, wherein the modulated pilot symbol has a length of 64 chips.

13. The method as claimed in claim 10, wherein the complex channel includes an I channel and a Q channel.

14. A method for transmitting side information over a burst pilot channel in a mobile communication system, comprising the steps of:

generating a modulated pilot symbol by outputting an input pilot symbol at a designated phase according to an information bit for determining the phase;

and

spreading the generated modulated pilot symbol with a predefined orthogonal code.

15. A method for transmitting side information over a burst pilot channel in a mobile communication system, comprising the steps of:

generating a modulated pilot symbol by outputting an input pilot symbol on a designated complex channel according to an information bit for determining the complex channel; and

spreading the generated modulated pilot symbol with a predefined orthogonal code.

16. A method for transmitting side information over a burst pilot channel in a mobile communication system, comprising the steps of:

generating a pilot symbol; and

spreading the generated pilot symbol with an orthogonal code selected according to an information bit, from a plurality of orthogonal codes.

17. A method for transmitting side information over a burst pilot channel in a mobile communication system, comprising the steps of:

generating a modulated pilot symbol by outputting an input pilot symbol at a designated phase according to an information bit for determining the phase; and

spreading the generated modulated pilot symbol with an orthogonal code selected according to the information bit input signal, from a plurality of orthogonal codes.

18. A method for transmitting side information over a burst pilot channel in a mobile communication system, comprising the steps of:

generating a modulated pilot symbol by outputting an input pilot symbol

on a designated complex channel according to an information bit for determining the complex channel; and

spreading the generated modulated pilot symbol with an orthogonal code selected according to the information bit, from a plurality of orthogonal codes.